

Application No.: 10/587,998

Docket No.: 12810-00333-US

REMARKS/ARUGMENTS

Claims 1-3 and 6-19 are pending in this application. Claims 1-3, 6, and 7 have been amended and claims 14-19 have been added.

Claim 1 has been amended for minor editorial purposes, to recite additional structural and property aspects of B).

Claims 2, 3, 6, and 7 have been amended for minor editorial purposes.

Support for the amendments to claim 1 can be found in claims 4 and 5, and in the specification at page 7, line 37 to page 8, line 10, as originally filed. Support for the amendments to claims 2, 3, 6, and 7 can be found in the claims, as originally filed. Support for new claims 14-19 can be found in the specification at page 8, lines 7-10 and 25-33, as originally filed. Reconsideration is respectfully requested in view of the remarks below.

No new matter has been added.

Applicants wish to thank the Examiner Lee and Supervisory Patent Examiner Jagnnathan for the interview held on March 5, 2009 with Applicant's representative, and for the follow-up phone discussions with Examiner Lee regarding the claims and amendment considerations. At the interview and discussions, Applicant's representative argued the non-obvious combination of the claimed thermoplastic polymer (A) and highly branched or hyperbranched A_xB_y polyester (B). Amendment proposals to further define component B) were also discussed.

Reconsideration of the pending claims of the present application is requested in view of the interview discussions and following remarks.

Rejection under 35 U.S.C. § 103

The rejection of claims 1-13 under 35 U.S.C. §103(a) over the combination of Gareiss et al. (U.S. 5,712,336) and Dvornic et al. (U.S. 2002/0161113) is respectfully traversed for reasons of record, the above-discussed amendments, and the additional reasons discussed below.

Gareiss and Dvornic, alone or in combination, do not describe or suggest the claimed combination of the *thermoplastic polyester and highly branched or hyperbranched A_xB_y polyester*, as presently amended.

As an initial matter, Applicants point out that an obviousness analysis under 35 U.S.C. § 103 requires, *inter alia*, consideration of the differences between prior art references and the

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claims at issue. See *KSR International Co. v. Teleflex Inc.*, 127 S.Ct. 1727 (2007) (“*KSR*”) (citing *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18, 86 S.Ct. 684 (1966) (“*Graham*”) (describing factors that control an obviousness inquiry). In *Graham*, the U.S. Supreme Court (“Court”) set forth the framework for applying the statutory language of 35 U.S.C. § 103, and in *KSR* the Court determined that the *Graham* factors were still useful and provided “helpful insight” to an obviousness inquiry. *KSR*, 127 S. Ct. at 1741. The Court further indicated that a “teaching, suggestion, motivation” to combine need not be explicit in every case. *Id.* (referring to a mechanical device application, in which the Court determined that merely adding a previously existing sensor for detecting pedal movement to a previously existing adjustable throttle pedal was not inventive).

However, in making its obviousness determination, the Court indicated the importance of identifying a “reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *Takeda Chem. Indus., v. Alphapharm Pty. Ltd.*, 492 F.3d 1350, 1356-57 (Fed. Cir. 2007) (“*Takeda*”) (quoting *KSR*, 127 S. Ct. at 1731). In the chemical case *Takeda*, the U.S. Court of Appeals for the Federal Circuit (“Federal Circuit”) concurred with the Court’s reasoning by also emphasizing that “it remains necessary to identify some reason that would have led a chemist to modify a known compound in a particular manner to establish *prima facie* obviousness of a new claimed compound.” *Takeda*, 492 F.3d at 1357.

In the present case, the Office has not demonstrated that there would be any apparent reason to modify either reference, or provided a reason that one skilled in the art would have been led to combine the references to achieve the claimed composition.

In particular, Applicants point out that Gareiss et al. only describes, *inter alia*, “thermoplastic polyesters.” For instance, Gareiss et al. describes an entire composition relating to flameproofed thermoplastic molding materials, in which the main material is a thermoplastic polyester. In great detail, the reference provides several descriptions of thermoplastic polyesters, beginning at column 2. The reference also provides at four other main components for composition, including conventional additives. However, there is no such description or suggestion of modifying the reference, with any expected benefit, to include a highly branched or hyperbranched A_xB_y polyester. According to the reference, the objects and benefits of the

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composition, e.g., improved flameproofing properties, are achieved based on the combination of components A) to E), excluding any highly branched or hyperbranched A_xB_y polyester. Proof of these results are also shown in the examples of the reference, beginning at column 10.

Similarly, Dvornic et al. describes thermoplastic polymers, with an emphasis on "*highly branched, thermoplastic polymers.*" Column 1, paragraph [0002] (emphasis added). However, the reference clearly refers to the *synthesis* of general types of highly branched thermoplastic polymers, in which these polymers are compared to dendrimers. *Id.*, paragraph [0005] (emphasizing better theological properties, thermoplastic processing, etc.). Of the several generic hyperbranched polymers, there is no indication of the development of a composition containing the polymers or any indication that one would substitute the thermoplastic polymer of Gareiss et al. for a highly branched one.

Further, even with the several descriptions of the synthesis of several highly branched polymers throughout Dvornic et al., there is no specific showing of the claimed highly branched or hyperbranched A_xB_y polyester of component B), i.e., specifically,

wherein B) has an OH number (to DIN 53240) of from 0 to 600 mg KOH/g and a COOH number (to DIN 53240) of from 0 to 600 mg KOH/g.

wherein a degree of branching of B) is from 10 to 99.9%,

and wherein B) has both structural and molecular non-uniformity.

In view of the above specificity of the claimed component B), one would clearly have to 1) pick and choose among the general descriptions of the highly polymers in Dvornic et al., 2) selectively choose a highly branched polyester from the reference, 3) attempt to synthesize every possible polymeric highly branched structure in an effort to obtain the claimed highly branched or hyperbranched A_xB_y polyester, and 4) then try to modify or substitute it in the composition of Gareiss et al. to achieve the composition with the results provided in the present specification. However, such reasoning would involve improper hindsight based reasoning, based on the present specification, in which there is no indication that such an attempt would be effective or achieve the same results. See results discussed in the Response dated September 10, 2008.

As such, the claimed invention is not obvious over the references alone or in combination. Therefore, Applicant respectfully requests reconsideration and withdrawal of this rejection.

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Provisional Double Patenting Rejections

Applicant acknowledges the Office's indication that that the provisional double patenting rejections have been maintain. Applicant requests that the rejections be held in abeyance until allowable subject matter is indicated.

In view of the foregoing, consideration and allowance are respectfully solicited.

In the event the Examiner believes an additional interview might serve in any way to advance the prosecution of this application, the undersigned is available at the telephone number noted below.

The Office is authorized to charge any necessary fees to Deposit Account No. 03-2775.

A one-month extension and fee have been requested with the filing of this response. Applicant believes no additional fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 03-2775, under Order No. 12810-00333 from which the undersigned is authorized to draw.

Dated: April 8, 2009

Respectfully submitted,

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